Amendments to the Claims:

1. (Previously Presented) A method, comprising:

providing in a router a database of bindings of client devices to network applications to replicas of a network application, where a client device establishes a session with a replica of a network application, where the session includes a session state, where a binding includes a binding expiration time, and where the router is a first router of a plurality of routers associated with a network in which the network applications run;

maintaining a change log of records entered into the database, where a change log entry has a change event generated by the first router and an event number sequential to an event number of a preceding change event in the change log;

maintaining a current version vector associated with the database and the change log, the current version vector entry for the first router being a most recent event number from the change log, the current version vector entry for each other router being a most recent event number received at the first router from that other router;

receiving an update of change events generated at another router in the plurality;

reconciling the current version vector according to the received update;

reconciling the database according to the received update such that the client session is maintained; and

providing a consistent DNS binding to a set of related application connection requests from a client device, where the set of related application connection requests request access to a network application having multiple replicas in a

distributed network environment, and where the set of requests are associated with a single session established between the client device and a single replica of the network application.

2. (Previously Presented) The method of claim 1, where the client device is identified by an Internet Protocol (IP) address, where the single replica of the network application is identified by an IP address, and where the network application is identified by a Domain Name System (DNS) name.

3. (Cancelled)

4. (Previously Presented) The method of claim 2, where the client device is associated with a dproxy Internet Protocol address.

5. (Original) The method of claim 1 wherein the step of reconciling the current version vector comprises the steps of:

      comparing a least recent event number of the router that generated the update to the event number in the current version vector entry for that router;

      if the least recent event number is in series with the event numbers in the database as determined by the current version vector entry for that other router, then entering the most recent event number of the received update into the current version vector entry for the router that generated the update of change events; and

      if the least recent event number in the update is not in succession to the event number in the current version vector entry for the router that

generated the update of change events, then discarding the received update.

6. (Original) The method of claim 5 wherein the step of reconciling the database further comprises:

if the update was not discarded in the step of reconciling the current version vector, then for each entry of the received update,

a) determining whether the received entry has expired;

b) if the received entry has expired, then discarding the entry;

c) if the received entry has not expired, then comparing the request identifier of the received entry with the request identifier in the entries in the database;

d) if a matching entry is not found for the received entry, adding the received entry to the database;

e) if a matching entry is found for the received entry, then comparing the application identifier of the received entry with the application identifier of the matching entry;

f) if the application identifiers match, then retaining the entry having a later expiration time in the database; and

g) if the application identifiers do not match, then retaining an entry selected based on a deterministic function applied to a portion of each entry.

7. (Original) The method of claim 6 wherein the step of retaining an entry based on a deterministic function comprises the steps of applying a function to the application identifiers; and selecting an entry based on the outcome of the function.

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8. (Original) The method of claim 6 wherein the step of retaining an entry based on a deterministic function comprises the steps of applying the deterministic function to the request identifier; and selecting an entry based on the outcome of the deterministic function.

9. (Original) The method of claim 1 further comprising the step of deleting a binding from the database when the expiration time for the binding has been exceeded.

10. (Original) The method of claim 1 further comprising the step of sending a request for an update of change events to another router in the plurality; and
    the step of receiving the update further comprises receiving the update in
        response to the request.

11. (Original) The method of claim 1 further comprising the steps of:
    periodically generating a first router update of change events; and,
    transmitting the first router update of change events to at least one other
        router in the plurality.

12. (Original) The method of claim 1 further comprising the steps of:
    affirming that an update has been received from each router of the plurality
        within a predetermined period for each router;
    if an update has not been received from a router within the predetermined
        period for that router, requesting an update of change events from that
        router; and
    if an update is received in response to that request,
        reconciling the current version vector according to the received update;
          and

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reconciling the database according to the received update.

13. (Original) The method of claim 5 wherein the step of reconciling the database further comprises the steps of:

>   determining from the received update whether the database has a complete record of changes based on the current version vector;

>   if the database does not have a complete record of changes, requesting a replacement database from a router of the plurality of routers.

14. (Original) The method of claim 1 further comprising the step of transmitting a copy of the database and the current version vector to another router of the plurality of routers in response to a request from the other router.

15. (Original) The method of claim 1 wherein the computerized device fails temporarily and recovers, the method further comprising the steps of:

>   writing the first router change log to a persistent storage device;

>   sending an update of change events written to the change log in the persistent storage device to other routers in the network;

>   after recovering from failure, requesting a database and an associated version vector from one of the routers in the plurality;

>   retaining the received database and associated version vector;

>   reconciling the received database with the change log from the persistent storage device; and

>   updating the received version vector.

16. (Original) The method of claim 1 wherein the received update includes a version vector and the method of maintaining a current version vector further

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comprises the step of maintaining the current version vector in a version vector table including past version vectors.

17. (Original) The method of claim 16 further comprising the steps of:

determining from the version vector table whether the database is current based on the version vector table; and

if the database is not current, then requesting missed change events from a second router in the network.

18. (Original) The method of claim 17 wherein each router caches updates received from other routers in the plurality, the method further comprising the step of:

if the router that generated the received update does not respond to the request for missed change events, requesting the missed change events from a second router of the plurality and reconciling the change events into the database and current version vector.

19. (Original) The method of claim 1 wherein the computerized device fails temporarily and recovers, wherein the step of maintaining a current version vector further comprises the steps of:

creating an epoch timestamp from a clock of the computerized device to mark a recovery period;

entering a value pair to the current version vector for the first router, the value pair being an event number and the epoch timestamp; and

the method further comprising the step of after recovery, requesting a database copy and associated version vector from one of the other routers in the plurality.

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20. (Original) The method of claim 19 further comprising the steps of:

   determining whether a pre-selected time period has passed; and

   deleting value pairs before a most recent value pair from the current version

   vector having timestamps created before the pre-selected time period.

21. (Previously Presented) A system to maintain a client session between a client

device and a replica of a network application running in a network having a plurality

of routers, comprising:

   a network interface to receive a request from a client to access the network

   application;

   a storage device to store a database of bindings, where a binding relates the

   client device to the network application to a replica of the network

   application, where the client device is identified by an IP address,

   where the replica is identified by an IP address, and where the network

   application is identified by a DNS name, and where a binding includes

   a binding expiration time, the storage device to further store a change

   log and a current version vector associated with the change log where

   the change log includes records added to the database by the system

   and the current version vector has an entry for each router in the

   network, each entry storing a version vector of a particular router; and

   a controller coupled to the interface and the storage device, the controller

   configured to route the request, if the controller finds a binding

   matching the request, the controller to route the request to a replica of

   the network application according to the binding and to reset the

   binding expiration time in the binding, if the controller does not find a

binding matching the request, the controller to add a new record to the
database of bindings.

22. (Original) The system of claim 21 wherein the network interface is configured to
receive an update of change events for the database from another router in the
plurality of routers in the network; and

the controller is further configured to reconcile the database according to the
received update and to update the current version vector in response to reconciling
the database.

23. (Original) The system of claim 21 wherein the controller is configured to
transmit periodically, to at least one of the other routers in the plurality, an update of
change events and the current version vector.

24.-27. (Cancelled)